

# BUYING HELP

## Can I upgrade my notebook?

**Q** I have a Packard Bell notebook computer with a Pentium II processor. These days it's not capable of running the latest software so I want to upgrade it. Ideally, I'd like to upgrade the processor to a new Pentium 4. Is this possible?

*Frank Jacqueline*

**A** Sadly, it's not possible. Although they have similar names, the Pentium II and Pentium 4 processors are very different. If you had a desktop PC, changing the processor would require a new motherboard and memory as well. You cannot change the motherboard or the processor in your notebook.

If you need a Pentium 4, it's best to buy a new notebook computer. If you can't afford one, there are a few ways you could speed up your existing notebook. The best way to add an extra turn of speed is to add more memory. If you know the exact model name of your notebook, you should be able to find a compatible memory upgrade at [www.crucial.com](http://www.crucial.com).

Older computers also tend to slow up as the hard disk becomes full. Uninstall any software that you never use, delete any unwanted documents and



▲ Adding more memory is a simple way to revitalise an old notebook

defragment the hard disk using the tool that is built into Windows.

As a last resort, copy important documents to an external disk and install a fresh copy of Windows. If you have a restore CD it should be easy; if not, make sure you have all the necessary drivers and software before you start or you may end up with a useless computer. **TR**

## How do I configure RAID?

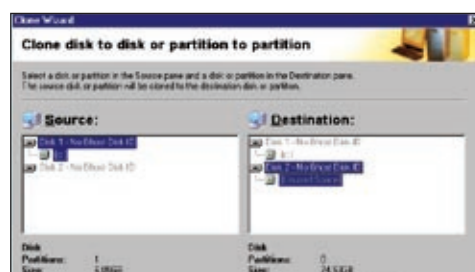
**Q** My PC supports RAID arrays, but it's installed with only a single hard disk. Can I just add another disk to enable RAID?

*Jeffrey Pinkus*

**A** To make a RAID array, you need two hard disks with the same capacity. It's usually best to get identical drives so you get the same performance out of both. You may think upgrading to RAID is just a matter of finding a matching hard disk for your existing drive. But it's not that simple. Creating a RAID array will destroy all the data on your existing hard disk, so you'll lose everything.

There are a couple of ways around this, though. First, you can buy a copy of Symantec's Norton Ghost 10 and write a complete copy of your PC's hard disk to optical media or an external hard disk. Then add your second hard disk and make the RAID array. Next, restore your image to the new RAID array and your computer will go back to the way it was when you started, but with the files spread over both disks.

Alternatively, buy two new hard disks, such as Samsung's 250GB SpinPoint SP2504C (£79 including VAT from [www.komplett.co.uk](http://www.komplett.co.uk)), and add them to your existing configuration. If you want to migrate all your data from your existing hard disk, Norton Ghost 10 can again be used to do the job. Alternatively, use the RAID array for new applications and data, where it will offer improved data protection or better performance. **DL**



▲ Use Norton Ghost to copy all your data to a backup drive before reconfiguring your PC for RAID

## YOUR EXPERTS

For advice on PC purchases, contact Buying Help

### Tom Royal

Labs Editor Tom Royal can recommend the best product for your specific requirements.



### David Ludlow

If the product you need exists, Reviews Editor David Ludlow knows where you can buy it.



[buyinghelp@computershopper.co.uk](mailto:buyinghelp@computershopper.co.uk)

## Can I view S-video on my monitor?

**Q** I want a converter that lets me watch video from a SCART or S-video output on my computer monitor. I can only find complicated gadgets that are expensive. Could you recommend something that doesn't cost the earth?

*Sam Micklem-Cooper*

**A** Several devices allow you to view video from an S-video source on your computer monitor. Maplin sells the Super VGA Box 2 for just

under £60 including VAT. It can convert S-video into a VGA signal for a PC monitor, and produces resolutions of up to 1,280x1,024. It's also got a TV tuner built in, so you can use your computer monitor as a second TV.

Search the website at [www.maplin.co.uk](http://www.maplin.co.uk) for A88CG for more information. At the time of writing, there's an older version, the VGA box, on sale for just £30. It's similar, but has no TV tuner and can only produce resolutions of up to 1,024x768. Search the same website for A06FL for details. **TR**

# How can I store my holiday photos?

**Q** I'm going on holiday and will take my digital camera with me. The problem is, I'm not sure how many memory cards to take. Is there any way to transfer my photos from the memory card to a flash drive so that I don't have to take my notebook?

Robert Bruce

**A** There are lots of clever ways to store your digital photos when you're on holiday. If you already have a large USB flash drive and a camera with a standard USB connection, you could try Belkin's USB Anywhere. This little £21 box allows you to copy images from one USB device to another.

You plug your camera in one side and your flash drive in the other, and it copies your photos over for safekeeping.

If you don't already have a large flash drive, however, it might be cheaper and simpler to buy a new, larger memory card. Cards that can store 1GB of photos, or even more, are now relatively cheap.

A 1GB SD card costs less than £40. Even if your camera produces large 5MB image files, one 1GB card can hold around 200 pictures, or the equivalent of over five rolls of 35mm film. Unless you're taking a very long trip or you have an itchy shutter-button finger, you shouldn't need more than one card. **TR**



# Should I get a new printer?

**Q** My Brother HL-1250 monochrome laser printer has worked faultlessly for many years, getting through several toner cartridges and a drum. The drum needs replacing again, which will cost around £100. However, a brand new printer is about the same price. Is it advisable to throw away a perfectly good printer?

Frank Howell

**A** The printer is worth replacing as soon as it becomes more expensive to replace the consumables than buy a new printer. But it can be more complex than it would first appear.

You have to consider the quality of the new product. Will it produce the same quality of prints you get from the existing printer? This is less of an issue for mono printers, but for colour inkjets there can be massive differences. It's also worth bearing in mind what consumables are provided with the new printer. For example, a new printer may come with only a half-full toner cartridge, making its value a lot less.

Finally, when you buy a new printer, consider the printing costs. A cheap printer may seem good value, but a high cost per page could make it work out more expensive in the long run than an initially more expensive printer.

It would appear that now is a good time to replace your printer. Samsung's ML-2250 costs £65 including VAT from [www.pcwb.com](http://www.pcwb.com). It uses a single 5,000-page rated toner cartridge, which works out at a reasonable 1.33p per page. **DL**



▲ Consider the cost of consumables when buying a cheap printer

# Do I need a digital input?

**Q** I want to buy a new monitor, but was wondering if I should get one with a digital input. Is it worth it?

Glen Landerson

**A** A digital input (DVI) has several advantages over analogue. You don't have to adjust any of your monitor's settings to get the best picture. As soon as you turn on your PC, the monitor is ready to work.

With an analogue connection you have to press the auto-adjust button, which configures the monitor to work with the input from the PC. Often this doesn't work perfectly and you have to adjust advanced settings such as the clock and phase to get a stable picture.

Using a digital connection gets the highest-quality picture with the least amount of hassle. It's not hard to find monitors with digital inputs and they're no longer more expensive than monitors with just analogue inputs.

A 19" LCD gives a good balance between screen size and price. Belinea's 10 19 25 costs £200 including VAT from [www.247av.com](http://www.247av.com) and produces an excellent image via its digital input. It also has an analogue input, so you can use it with PCs that don't have DVI. **DL ES**



▲ A monitor with a digital input will get you the best picture quality with the least amount of hassle

# Can I fit a newer graphics card?

**Q** I would like to fit an ATI Radeon 9600XT 256MB graphics card to my ECS K7S5A motherboard, but I have been told that the voltage of my AGP 4x slot might not be compatible. What should I do?

Terry Ede

**A** The AGP standard can be a headache. Even if you consider voltages alone, there are five different types of AGP connector: AGP 3.3V (supports 3.3V only), AGP 1.5V (supports 1.5V only), Universal AGP (supports 3.3V and 1.5V), Universal 1.5V AGP 3.0 (supports 1.5V and 0.8V) and Universal AGP 3.0 (supports 3.3V, 1.5V and 0.8V). ATI's Radeon 9600 cards use the Universal 1.5V AGP 3.0 standard, which means they work at either 0.8V or 1.5V. Your motherboard's AGP slot must be of a standard that supports one of these voltages

— as you can see from the list any standard except AGP 3.3V would do. Happily, as the ECS K7S5A has an AGP 4x slot it can't be AGP 3.3V. AGP 3.3V is old, and doesn't come in a 4x speed.

To make extra sure your motherboard isn't AGP 3.3V you can inspect its slot. AGP cards have notches corresponding to the voltages they support. If the connector has a notch near the end of the card where the monitor cable is connected, it runs at 3.3V. If it has a notch near the other end, it works at 1.5V or 0.8V. If it has both notches it will work at all three voltages.

An AGP 3.3V motherboard has a key in the 3.3V position that prevents you inserting cards without the 3.3V notch. Assuming your slot has no keys, or just the 1.5V key, you'll be fine.

This system ensures that provided a card fits in a slot it should work. For more, see [www.playtool.com/pages/agpcompat/agp.html](http://www.playtool.com/pages/agpcompat/agp.html). **TR**